

IN THE CLAIMS

CLEAN (UNMARKED) COPY OF AMENDED CLAIMS

Please amend the Claims as shown below:

1. A method for applying multi-resolution boundary encoding to region based still image and video encoding, comprising:
- dividing an original image into a plurality of regions, wherein a plurality of boundaries associated with the plurality of the regions is detected;
- encoding each of the plurality of the boundaries, whereby each of the plurality of the boundaries contains different resolution coefficients;
- decomposing each of the plurality of the regions in the original image into one or more subbands using the plurality of the boundaries with the highest resolution coefficients;
- successively decomposing each of the plurality of the regions in a subband with lower resolution coefficients into one or more subbands using the plurality of the boundaries with lower resolution coefficients;
- transmitting boundary information associated with regions of the original image and image information with the lowest resolution coefficients; and
- successively transmitting boundary information associated with regions of the original image and image information with higher resolution coefficients.
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11. An apparatus for applying multi-resolution boundary encoding to region based still image and video encoding, comprising:

means for dividing an original image into a plurality of regions, wherein a

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plurality of boundaries associated with the plurality of the regions is detected;

means for encoding each of the plurality of the boundaries, whereby each of the plurality of the boundaries contains different resolution coefficients;

means for decomposing each of the plurality of the regions in the original image into one or more subbands using the plurality of the boundaries with the highest resolution coefficients;

B² means for successively decomposing each of the plurality of the regions in a subband with lower resolution coefficients into one or more subbands using the plurality of the boundaries with lower resolution coefficients;

means for transmitting boundary information associated with regions of the original image and image information with the lowest resolution coefficients; and

means for successively transmitting boundary information associated with regions of the original image and image information with higher resolution coefficients.

14. A computer readable medium providing instructions for applying multi-resolution boundary encoding, to region based still image and video encoding, the instructions comprising:

B³ dividing an original image into a plurality of regions, wherein a plurality of boundaries associated with the plurality of the regions is detected;

encoding each of the plurality of the boundaries, whereby each of the plurality of the boundaries contains different resolution coefficients;

decomposing each of the plurality of the regions in the original image into one or

more subbands using the plurality of the boundaries with the highest resolution coefficients;

successively decomposing each of the plurality of the regions in a subband with lower resolution coefficients into one or more subbands using the plurality of the boundaries with lower resolution coefficients;

transmitting boundary information associated with regions of the original image and image information with the lowest resolution coefficients; and

successively transmitting boundary information associated with regions of the original image and image information with higher resolution coefficients.
